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WETLANDS LITIGATION: CURRENT ISSUES AND NEW DIRECTIONS

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For naturalists, artists, photographers and tourists, the aesthetic beauty of wetlands makes them inherently worthy of protection. But the physical functions of wetland areas are equally important. The swamps, marshes, or sloughs once dismissed as useless and inconvenient play a crucial role as fish and wildlife habitat, and in purifying water, maintaining groundwater supplies, and preventing flooding. They provide essential nesting, wintering, resting, and feeding grounds for many species of migratory waterfowl, water birds, and songbirds. [FN1] Almost half of Pacific coast fish and shellfish are dependent on wetlands. Two-thirds of the commercially important fish and shellfish harvested along the Atlantic and Gulf coasts depend on coastal estuaries and their wetlands for food sources, spawning grounds, or nurseries for their young. [FN2] Approximately 20 percent of all endangered or threatened plant and animal species depend heavily on wetlands for food and/or habitat. [FN3]

Wetlands perform important water purification functions by filtering nutrients, sediments, and pollutants. [FN4] A study by a Georgia state agency showed that water heavily polluted with human and animal wastes emerged clean after passing through 2.75 miles of swamp. [FN5] In some areas, wetlands are intentionally used as water treatment facilities. [FN6]

Wetlands act as sponges for rainwater and runoff, holding and retaining excess water. Often, the water then percolates into aquifers, replenishing critical groundwater supplies. [FN7] This water retention characteristic also makes wetlands invaluable for erosion reduction and flood protection. Through absorbing peak flows and slowly releasing the water into swollen rivers, this reservoir storage function prevents property damage in both rural and urban areas.

It is estimated that 200 years ago there were 215 million acres of wetlands in the continental U.S. [FN8] Today, approximately 90 million acres remain. [FN9] Despite annual losses of around 300,000 acres, [FN10] 95 percent of today's wetlands are located in inland, freshwater areas. [FN11] Most losses occurring in these inland areas, with reductions almost evenly distributed between draining and clearing for agricultural and non-agricultural

land use.

The economic and environmental values of wetlands are clear. Stronger wetland protection is necessary, but regulation must be balanced, understandable, and efficiently administered. Present regulation is complex, occasionally conflicting, and often confusing. A major battle is shaping up in Congress over potential statutory changes.

I. REGULATION OF WETLANDS BY FEDERAL AGENCIES

Federal wetlands regulatory authority comes from both the Rivers and Harbors Act [FN13] and the Federal Water Pollution Control Act, commonly known as the Clean Water Act. Rivers and Harbors Act authority is clearly vested with the Army Corps of Engineers. The Clean Water Act (CWA) covers a much more extensive geographic area than the Rivers and Harbors Act. Both the Corps and EPA have CWA authority, often resulting in a confusing mix of dual authority, separate authority, and review or veto authority.

CWA §404(a) gives the Corps authority to issue permits to discharge dredged and fill materials into waters of the United States. §404(b)(1) requires that the permit decision be based on guidelines developed by EPA in conjunction with the Corps. §404(c) gives EPA veto authority over the issuance of permits. [FN17]

The Corps routinely makes determinations as to whether lands are classifiable as wetlands in administering its permit program. But the Attorney General and subsequent court decisions have determined that ultimate authority for jurisdictional determinations rests with EPA. Enforcement authority is split, with EPA responsible for enforcement against those who discharge without a permit, and the Corps responsible for those who violate terms of a permit.

The Corps basically administers the CWA wetlands program. EPA exercises its authority principally by reviewing Corps actions and policies. The Corps gives EPA views serious consideration and attempts to accommodate EPA positions to avoid potential veto. However, EPA's permit or jurisdictional veto power is rarely utilized.

One example of EPA's exercise of permit veto authority is the Two Forks Dam and Reservoir Project just outside Denver, Colorado. The Corps determined that the proposed project would cause major impacts to wetlands and other natural resources, but chose to issue a permit conditioned by significant mitigation measures. The public interest benefits of a reliable long-term water supply for the Denver area were felt to outweigh residual environmental impacts. EPA did not agree and vetoed the Corps permit decision. A number of courts have held that most aspects of EPA's permit veto authority are unreviewable in court.

In an attempt to minimize EPA review of individual Corps permitting decisions, permit elevation was addressed in a 1992 memorandum of agreement. Individual permit elevation is to occur only if EPA believes the project will result in "significant impacts to aquatic resources of national importance." While these terms are not specifically defined, CWA §404(o) is referenced as a basis for comparison. No veto action will be attempted unless this threshold resource value is met.

II. FEDERAL WETLANDS JURISDICTION

CWA §404 requires a Corps of Engineers permit for the discharge of dredged or fill material in "waters of the United States." The Corps' regulations define "waters of the United States" to include wetlands and "adjacent wetlands." Adjacent wetlands have been liberally interpreted to include wetlands separated by barriers and some distance from a water body. Individuals must obtain permits before undertaking activities involving fill, even

on privately owned land, if the land fits the broad definition of wetlands.

The first step is a determination that an area is a wetland. Corps district offices encourage landowners to provide preliminary determinations to save Corps time and effort. Determinations by private environmental consultants or firms are often accepted without comment, particularly if the Corps is familiar with their work and qualifications.

Corps regulations define wetlands as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." [FN24] Regulatory Guidance Letters provide further assistance on specific issues regarding jurisdiction.

A. Criteria in Making a Wetlands Determination

Three key factors in making a wetlands determination are water, soils, and vegetation. Surface waters (including rainwater) [FN25] and groundwater [FN26] are possible sources of the required inundation or saturation. The near constant presence of water drives oxygen from the soils, producing distinct soil types indicative of wetlands. Wetlands plants must adapt to growth in soils lacking atmospheric oxygen. Plants with these adaptations are considered an indicator of wetlands.

The "normal circumstances" test is meant to address deliberate attempts to avoid jurisdiction by destroying the aquatic system. [FN27] It excludes land that was previously wetland, but has since evolved into dry land, naturally or through activity prior to the advent of wetlands regulation. For land filled in violation of the CWA, "normal circumstances" would be the state of the land prior to filling.

B. Delineation Manuals

The Corps issued its first manual for delineating wetlands in 1987. In 1989, another manual was issued jointly by the Army, EPA, Fish and Wildlife Service, and Soil Conservation Service. The 1989 Manual contains a more expansive wetlands definition and brings far more land under regulation than the 1987 Manual. Substantial political and industry objections were raised to the 1989 Manual, resulting in a proposal to limit its scope. [FN28]

Questions remain as to whether the 1989 Manual is guidance material or has the force of law, and whether it was properly promulgated. At present, the Corps is prevented from using the 1989 Manual by an amendment to the 1992 Energy and Water Development Appropriations Act, signed by then-President Bush. The Corps uses the 1987 Manual, while EPA uses the 1989 Manual.

C. Interstate Commerce Requirement

An effect on interstate commerce is nominally a prerequisite to the exercise of federal authority, though Courts have very liberally construed this requirement. [FN29] Under Corps regulations, jurisdiction extends to waters which are or would be used as habitat by birds protected by Migratory Bird Treaties, other migratory birds which cross state lines, or endangered species. [FN30]

This expansive assertion of authority has generally been upheld. However, the 7th Circuit recently rejected assertion of Corps authority over filling a totally isolated, .8 acre, clay-lined pit held "wetland." [FN31] this was a purely local act, beyond the scope of the CWA. Potential use of the wetland as a landing site for migratory

birds, with no evidence that birds or animals of any sort had ever utilized the area, was insufficient to establish an effect on interstate commerce. Exceptions may also arise in the 4th Circuit, which has ruled that the Corps regulations were substantive rather than interpretive, and are therefore invalid for failure to comply with [FN30] Administrative Procedure Act notice and comment procedures for rulemaking.

D. Activities Subject to Wetlands Jurisdiction

One of the primary goals of the CWA is the prohibition of "point source" discharges of pollutants without a permit. [FN31] §404 designates dredged and fill materials as types of pollutants. Statutorily, Corps authority covers only activities which constitute a "discharge."

Dredging a wetland and disposing of the material in non-wetlands is not literally a discharge. As a consequence, dredging was not originally an activity subject to §404 permitting requirements. Subsequent decisions have found dredging to be a discharge since it's impossible to dredge without allowing some sediment to re-enter the water. [FN31] Accomplishment of the broad purposes of CWA, [FN32] and use of a bulldozer [FN33] have also been found sufficient to bring dredging within §404.

Draining a wetland is likewise not literally a "discharge," despite the resulting wetlands loss. It too was originally not regulated, but that policy may be changing. Corps guidance issued in 1990 is based on the "normal circumstances" test, and states that if pumps are used to remove water from a wetland for the apparent purpose of eliminating §404 jurisdiction, the draining is prohibited. [FN34] A court subsequently held that draining per se was not sufficient for Corps jurisdiction. [FN35] Actual discharge must be demonstrated, requiring something more than mere redeposition. The developer in the case was not shown to be deliberately attempting to avoid §404 jurisdiction

Pilings placed in a wetland ordinarily do not fall within §404 jurisdiction. However, they may be regulated if they are so densely placed that they displace a substantial amount of water. Large scale construction projects originally designed to be built on fill, may also be regulated if they're redesigned to incorporate pilings as a way of avoiding §404 jurisdiction. [FN36]

Landclearing (including that done on golf courses) is another activity that was originally not determined to be a discharge. However, because it destroys so many wetlands, some regulation has been attempted. The Corps has issued a Regulatory Guidance Letter stating that wetlands landclearing using mechanized equipment is subject to §404 jurisdiction. [FN37]

Treatment ponds and cooling ponds are specifically excluded from the definition of "waters of the United States" in Corps regulations. [FN38]

E. Rivers and Harbors Act

In several instances, Corps jurisdiction under the CWA does not apply, but jurisdiction may yet exist under the Rivers and Harbors Act. Examples include activities exempted from §404 of the CWA, or activities (as opposed to waters) that are covered by the Rivers and Harbors Act but not the CWA.

III. EXEMPTIONS FROM REGULATIONS OR PERMIT REQUIREMENTS

Even if a location is determined to be wetlands, the activity may be exempt from Corps permit requirements under §404(f)(1), or be subject to general or nationwide permits. Corps and EPA exemptions are essentially the same since the regulatory exemptions were issued first, and were later codified in the 1977 Amendments to the CWA.

A. Normal farming, silviculture (timber and forestry), and ranching activities

Guidance is provided in a Corps/EPA joint memorandum issued May 3, 1990. [FN39] To be exempt, activities may not be new, but must be part of an established, ongoing operation. [FN40] Converting agricultural wetland to agricultural uses is not considered part of ongoing operations. [FN41]

Activities which fall within the exemption include changes in the farming activity or cultivation technique, so long as actual farming has been ongoing. Planting different crops is exempt, as is resuming agricultural production in areas lying fallow as part of a normal rotational cycle. However, if the land has been idle for so long that hydrological modifications are required, or if wetlands are destroyed, the activity is not exempt. [FN42]

B. Maintenance

These exemptions include emergency repair of recently damaged, currently serviceable structures, as well as creation of temporary sedimentation basins at constructions sites. Also included are construction or maintenance of farm ponds, irrigation ditches, farm or forest roads, and temporary roads for moving mining equipment. Construction of minor drainage ditches is not exempt if it includes discharges associated with construction of ditches that drain waters of the United States. [FN43] Maintenance of such ditches, however, is exempt.

Acceptable maintenance must physically preserve the original configuration of the ditch, [FN44] and emergency reconstruction must occur within a reasonable time. [FN45] Draining immediately or gradually converts wetland to non-wetland is not exempt, nor is drainage which converts wetland from one agricultural use to another (e.g., silviculture to farming). [FN46]

C. Recapture Clause

All statutory exemptions are subject to the §404(f)(2) "recapture clause." Exemptions are not allowed if the activity has "as its purpose bringing an area of the navigable waters into a use to which it was not previously subject, where the flow or circulation of navigable waters may be impaired or the reach of such waters reduced." [FN47] A Corps Regulatory Guidance Letter has stated that application of the recapture provision is a judgment call that should be made in a reasonable fashion. [FN48] However, has been construed to prohibit exemption when extensive areas of water are converted to dry land, flow or circulation is significantly altered, or the reach of a water body is reduced. [FN49]

D. Alaska and the "1% Rule"

An exemption §404 permitting requirements for the state of Alaska was proposed in late 1992. [FN50] Alaska has vast existing wetlands, and has lost less than 1% of its original wetland areas to filling activities. On a percentage basis, these losses are significantly less than everywhere else in the country. The so-called "1% rule" would require

Alaska permit applicants to attempt to minimize adverse impacts to wetlands, but exempt them from the normal additional mitigation requirements of impact avoidance, and compensation for unavoidable impacts. EPA has received approximately 6600 comments to the proposed rule which it is currently reviewing. [FN51] Final promulgation seems less probable under the current administration, and it's unlikely any action will be taken before the end of 1993.

E. Nationwide Permits

Under the 1977 Amendments to the CWA, the Corps is authorized to issue general permits on a state, regional, or nationwide basis where activities are similar in nature and will have only minimal individual and cumulative environmental impacts. [FN52] The goal was eliminating individual review and allowing certain activities to occur with little, if any, delay or paperwork. The Corps effectively administers the nationwide permit program, the most significant of the general permits.

A variety of conditions apply to nationwide permits. General conditions which apply to all permits include 1) use of appropriate erosion and siltation controls, 2) no substantial disruption to the movement of indigenous aquatic species, 3) special endangered species and historic properties protections, 4) restrictions on discharges of dredged or fill materials, 5) state water quality certification, and 6) coastal program consistency determinations by states. [FN53]

Corps district engineers have discretionary authority to suspend, modify or revoke nationwide permit authorizations if there would be more than minimal individual or cumulative net adverse effects on the environment, or the activity is not in the public interest. [FN54] This authority has not frequently been used, particularly since the majority of nationwide permits do not require that the Corps be notified of the activity in advance.

IV. INDIVIDUAL PERMIT PROCESS

If a proposed location and activity are not exempt from Corps jurisdiction, and do not fall under any of the nationwide permits, individual permits must be obtained from the Corps prior to proceeding with any activity affecting wetlands. The actual permit application is generally filed only after substantial pre-application negotiation and coordination with Corps district offices. [FN55]

A. Permit Application and Decision Procedures

Within 15 days of receipt of an application, the district office must either issue a public notice of the proposal, or notify the applicant that additional information is needed. [FN56] Comments about the project are to be considered and addressed by the Corps. [FN57] Public hearings may be held upon request, or when specified by the Corps. [FN58]

The district engineer is required to prepare a statement of findings or a record of decision which presents Corps views on the probable effects of the proposed activity, including its conformity with EPA's §404(b)(1) guidelines. [FN59] Normally, recommendations of state and local governments on zoning and land use matter are accepted, unless the Corps identifies significant issues of overriding national importance. [FN60] The Corps must give full consideration to the views of the Fish and Wildlife Service, National Marine Fisheries Service, and state wildlife

agencies.However, this duty does not require complete deference to the agencies' views. [FN62] On average, permit decisions are made within 2-3 months after receipt of a completed application. If an environmental impact statement is required, however, it may be several years before a final decision is reached.

B. Corps Criteria for Permit Issuance

An important consideration for Corps permit issuance in all jurisdictional areas is "public interest review." [FN64] Benefits of the project are balanced against a variety of environmental concerns, as well as economics, recreation, food and fiber production, mineral needs, and considerations of property ownership. The decision should reflect the national concern for both protection and utilization of important resources." Permits to be granted unless the district engineer determines that it would be contrary to the public interest.

This permit issuance presumption is qualified with respect to wetlands, which have more protective permit evaluation criteria. Corps regulations state that "[m]ost wetlands constitute a productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged as contrary to the public interest."The regulations clearly set forth a presumption against allowing a permit that alters or destroys wetlands.

C. §404(b)(1) Guidelines

§404(b)(1) of the CWA requires that the Corps exercise its permitting authority through the application of environmental criteria developed by EPA, in conjunction with the Secretary of the Army. [FN70] Application of the guidelines is mandatory, though the Corps applies them independently rather than simply deferring to EPA's views. The Corps usually engages in extensive pre-application negotiation and review with applicants in an attempt to avoid conflicts over §404(b)(1) guidelines.

1. Practicable Alternatives and Water Dependency

§404(b)(1) guidelines establish a presumption against issuing a permit to fill wetlands for non-water-dependent activities if there is a practicable alternative available that would have less adverse impacts. A water dependent project is one which requires "access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose." Examples include a marina or boat dock. For non-water-dependent activities, practicable alternatives are presumed to be available unless clearly demonstrated otherwise. Practicable alternatives to the aquatic site are also presumed to have less adverse impact on the wetland ecosystem, unless clearly demonstrated otherwise.

The practicable alternatives test is essentially a land use planning overlay. It identifies and ranks alternative sites or project configurations for developments requiring discharges into wetlands. If filling cannot be avoided, alternatives with the least adverse environmental impacts should be selected for development.

Whether an alternative exists is largely a function of the purpose of the project. Development of a clear understanding of project purpose is a key step in the permit process. The purpose of a project may be defined as narrowly as construction of a particular condominium development on a particular wetland, or as broadly as "providing housing." The former purpose leaves room for few or no alternatives, while the latter purpose suggests numerous alternative non-wetland sites.

In the past, significant deference was given to an applicant's characterization of the project purpose. That has changed. The Corps now exercises its independent judgment as to the basic purpose and need for the project from

both the applicant's and the public's perspective.

"An alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics." Questions arisen as to when to evaluate the availability of alternatives. In the Sweden Swamp case, EPA adopted a "market entry approach" which was subsequently approved by the courts. The approach examines whether an alternative site was available at the time the applicant's site was purchased, rather than at the time of permit application. Avoidance is promoted, in that buyers are encouraged to look for non-wetland properties. The primary objection is that permit evaluation for a given site will vary from owner to owner. The Corps has not adopted the market entry approach exclusively, and tends to take a more pragmatic approach, evaluating whether alternative properties were available either at the time of site purchase or at the time of permit application.

The agencies (and the courts) have had particular difficulty determining how to weigh considerations of cost or economic feasibility when evaluating practicable alternatives. Regulatory and judicial decisions have produced a tremendous range of views. One court invalidated a Corps permit to build residences and a tennis court on a harborfront lot, ruling the Corps could not reject practicable alternatives based solely on the price of alternative lots. They should have considered sites not owned by the applicants, including those outside the prime neighborhood and allegedly costly, as long as the price was not unreasonably high.

On the other hand, a Corps permit to clear wetlands for conversion to agriculture was upheld, and alternatives such as timber harvesting, leasing, or hunting deemed not to be economical uses, and therefore not practicable. This court felt the guidelines required the Corps to consider the objectives of the applicant's project when evaluating alternatives, not just environmental impacts. [FN80] A desire for waterfront houses was found insufficient to establish a water dependent project, since there was no social need to build expensive houses for the affluent. [FN81] In one particularly interesting case, EPA vetoed a Corps permit issued for a municipal water supply dam, citing the practicability of alternatives. The court reversed EPA's veto, stating the alternatives were not truly practicable because they were located in a county that opposed the project, they required a §404 permit, the water would cost 50% more, and the technology advocated by EPA was experimental. [FN82]

A key administrative appeals decision addressing the evaluation of economic feasibility is Old Cutler Bay Associates (Oct. 9, 1990). The Director of Civil Works held that the permit applicant's stated purpose, to construct an upscale residential golf course and realize a reasonable profit, was not acceptable. The Corps must exercise its independent judgment as to the project purpose, which should have been construction of a viable upscale residential development with a golf course. Practicability or economic viability should be based on the economic circumstances of a typical applicant. The specific profitability statements of the particular applicant before the Corps should not have decisions.

The recent §404 permit decision for the Adam's Rib Recreation Area (ARRA) in Eagle County, Colorado provides a valuable case study into the potential role of economics in applying the practicable alternatives test.

ARRA is a proposed ski area to be located at the head of a narrow wetland valley in western Colorado. The developer planned to place fill into 45.81 acres of wetland along a stream course down the center of the valley. While the ski area itself would mainly be in non-wetland, associated hotels, condominiums, etc. were proposed on wetland fill. The stream would have been redirected into a 3' diameter pipe, and submerged underground for the full length of the development.

The proposed "residential and commercial development attendant to a four-season resort" was determined to be non-water-dependent. Consequently, available practicable alternatives that did not involve the filling of wetlands were presumed by the Corps to exist. The developer argued that in fact no practicable alternatives existed because any change to the plans would render the project economically inviable due to an unacceptable increase in costs.

Numerous specific issues regarding economic feasibility were raised by this application. Must all real estate products be massed around the central valley core location, creating a "critical mass" where people and commercial activities are concentrated, in order to give the core "vibrancy" and make people feel "a sense of belonging?" Do open areas (e.g. wetland preserves) destroy the "village fabric" of the development, resulting in a perception of obstacles which "discourage visitors from interacting" and using resort facilities, therefore discouraging real estate sales? How much weight should the Corps give to the developer's desire for the "unique marketing tool" of a monorail for visitor transportation? Is the $7,000,000 up front cost of the monorail adequate justification for filling the valley floor wetlands to provide additional "real estate products" (i.e. condos, townhouses, single family homes), which the developer must sell to make a profit on the venture? Should developers with narrow profit margins be relieved of ordinarily required mitigation and wetlands protection measures, while ostensibly better entrepreneurs with larger profit margins are subject to extensive restrictions?

In the ARRA scenario, the Corps ultimately held that the developer failed to rebut the presumption that practicable alternatives existed. An extensive list of alternatives were suggested to reduce adverse impacts to the aquatic ecosystem, allowing development of the resort.

No definitive rules on these issues currently exist. Applications are evaluated on a case by case basis. The practicable alternatives test remains a large obstacle to wetlands development, but its application is uncertain and varies widely among Corps district offices.

In June of 1992, the Corps prepared a draft Regulatory Guidance Letter on application of the practicable alternatives test. [FN83] In the draft, the Corps asserted considerable flexibility in its alternatives analysis; impacts to more valuable ecological resources required more stringent review of alternatives. The draft also addressed the role of financial circumstances in evaluating the economics of alternatives. "[T]he scope/cost evaluation must be made in a way that considers the type of applicant (e.g., an individual applicant [business or personal] as opposed to a large corporation)." If the proposed alternative is unreasonably expensive to the applicant, the alternative is not practicable. [FN84] "Mom and pop" applicants are specifically contrasted with large commercial developers in terms of their expected ability to utilize reconfiguration or offsite alternatives. The draft remains just a draft. Corps officials are not bound by the policies expressed, and there is no indication if/when a final Regulatory Guidance Letter may issue.

2. Significant Degradation

Another important criterion of the §404(b)(1) guidelines is the prohibition against permits that "will cause or contribute to significant degradation of the waters of the United States." [FN85] While the concept is often merged into the evaluation of practicable alternatives, in fact it's a separate hurdle that permit applicants must overcome. The Corps could deny a permit under this criterion even if it found that there were no practicable alternatives to a proposed non-water-dependent activity. (Such a permit application could also be denied under the Corps public interest review regulations.)

"Significant" has not been explicitly defined. However, in a Regulatory Guidance Letter, the Corps has stated that use of the word "significant" in the §404(b)(1) guidelines is not identical in meaning to "significant" as used in the NEPA requirement for the preparation of an environmental impact statement (EIS). Impacts significant enough to require an EIS are not necessarily significant enough for denial of a permit under §404(b)(1).

D. Use of Mitigation

Use of mitigation to replace lost ecological resources, or lessen adverse environmental impacts, is an important

but controversial factor in Corps permit evaluations. Mature wetlands systems are exceedingly complex, often representing thousands of years of geologic and hydrologic processes resulting in a broad range of soil profiles and ecologic niches. These highly productive systems cannot be replicated exactly, [FN87] The plant and animal species and much is still unknown about how the systems actually function. Generally speaking, certain types of tidal wetlands seem more easily replicated than inland wetlands. It is also easier to create marshes than forested wetlands. [FN88] Wetlands restoration or enhancement tends to be more successful than creation. [FN89]

A 1990 Corps/EPA Memorandum of Agreement adopts the "sequencing" approach previously used by EPA in considering mitigation. [FN90] A Corps makes a determination that potential impacts have been avoided to the maximum extent practicable, remaining unavoidable impacts will be mitigated by requiring steps to minimize impacts, or ultimately compensate for lost aquatic resource values. An exception to the sequencing requirement is allowed when the proposed activity is necessary to avoid environmental harm, or can reasonably be expected to result in [FN91] an insignificant impact or environmental benefit.

Under the Memorandum, the overall standard as to the amount of mitigation required is that there must be no net loss of functional value. Minimal mitigation is one for one functional replacement, with an adequate margin of safety built in to reflect the likelihood of success [FN92] Preference is expressed of the particular mitigation plan. for 1) in-kind compensatory mitigation over out-of-kind, 2) restoration over creation, and 3) on-site (adjacent or contiguous) [FN93] mitigation over off site.

Mitigation banking and mitigation monitoring are encouraged as permit conditions. Mitigation banking creates or restores [FN94] wetlands in advance, effectively serving as mitigation for future development. Mitigation monitoring may be imposed as a permit condition, particularly when there are high levels of scientific uncertainty as to the success [FN95] of the mitigation plan.

With respect to many aspects of mitigation, Fish and Wildlife Service has greater expertise than the Corps or EPA. Consequently, their input and comments as to potential mitigation measures carry great weight with Corps decisionmakers.

V. ENFORCEMENT

The Corps, EPA, and private citizens implement the CWA's enforcement provisions. [FN96] As a practical matter, the Corps is generally the lead enforcement agency for permit violations and unpermitted discharges because they have more field resources. EPA may take the lead in cases of repeat or particularly egregious violations.

Three enforcement alternatives are available to the agencies. Administrative orders may be issued by either the Corps or EPA, [FN97] possible civil penalties of up to $25,000 per day. [FN98] Administrative penalties may also be assessed. The maximum daily penalty is $10,000, with a maximum total of $25,000 or $125,000, depending on the type of violation. [FN99] Lawsuits may also be filed through the Justice Dept. [FN100] Ordinarily, the Corps will not pursue enforcement actions against activities completed more than five years prior to their discovery. [FN101]

VI. JUDICIAL REVIEW

Private parties have no right to administrative appeal of Corps decisions regarding wetlands determinations or permit decisions. Review is only available by filing suit in federal district court.

A. Ripeness

In general, controversies are generally not found ripe until the Corps has completed the process of making a wetlands determination or permit decision. Official opinions and compliance orders are not considered final agency action. [FN102]

B. De Novo Review

Fundamental precepts of administrative law hold that courts are not allowed to engage in de novo review of agency action, and are confined in their review to the record before the agency. EPA and the Corps are presumed to have the requisite expertise and experience needed to find the relevant facts and make an expert judgment. However, if the administrative record is inadequate or even non-existent, rather than request supplementation or remand entirely, [FN103] courts have occasionally proceeded with de novo review.

This situation is more likely to arise with a wetlands determination than a permit decision. Permit decisions involve notice and comment procedures which produce a record. Also, courts are more likely to view questions of agency jurisdiction as pure questions of law, appropriate for resolution in the courts rather than by the agency itself. [FN104]

Objections to permit denials are virtually always restricted to review of the record generated through notice and comment procedures. [FN105]

Challenges to permit issuances, however, may be more complex. Often a NEPA violation is also alleged by opponents of a project. The same evidence used to support objections to the adequacy of an environmental impact statement (EIS), or failure to prepare one, may be used to support the contention that a permit should not have issued. A minority of courts agree that a proper review of agency action cannot be performed without considering evidence not in the EIS. The law is unsettled and varies from jurisdiction to jurisdiction. [FN106]

C. Standard of Review

Wetlands determinations and permit decisions will not generally be overturned unless they are shown to be arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law. [FN107] Significant deference is due the Corps because of the technical expertise involved in both areas. [FN108]

VII. TAKINGS DEFENSE

In the wetlands context, landowners may claim a regulatory taking when restrictions are imposed on the profitable use of their property.

A. Judicial Decisions on Regulatory Takings

General regulatory takings criteria were set out in Penn Central Transportation Co. v. New York City. [FN109] Decisions are made case by case, guided by two principal factors: the economic impact on the claimant, and the character of government action. Sufficient economic impact requires a reasonable expectation of a property right in

that which is being regulated. The government action must deprive the claimant of virtually all economically viable use of the property. Deprivation of one previously available property interest is not sufficient to establish a taking.

In 1987, two significant takings decisions were issued by the Supreme Court. In Nollan v. California Coastal Commission, [FN111] the Court held that it was a taking for a regulatory agency to condition issuance of a permit on a concession from the landowner when the concession was not sufficiently related to the purpose of the permit. In First English Evangelical Lutheran Church of Glendale v. County of Los Angeles, [FN112] the Court found that monetary relief could be granted for a taking, and that relief should be awarded, even if the taking was temporary, for the time period the taking was in effect.

The Supreme Court's most recent takings decision is Lucas v. South Carolina Coastal Council. [FN113] A state agency refused to issue a residential building permit to the owner of an oceanfront lot. The Court found that the property owner was deprived of all economically beneficial use of his property. The rule that harmful or noxious property uses may be proscribed by government without a requirement of compensation was held invalid unless the government could establish all the elements of a public nuisance action.

Wetlands law has generally followed the Supreme Court's evolving position on the subject. Penn Central's stringent takings criteria are still in effect. No taking is likely to be found when permits are denied but partial use of the property is allowed. However, [FN114] a §404 permit for a Florida phosphate mine was subsequently held to be a taking. The Court rejected the government's argument that the permit denial prohibited activity that was detrimental to public health. They held that alternative property uses suggested by the government were meaningless, and compensation was required.

The most expansive decision on the issue of permit denials as regulatory takings came in Loveladies Harbor, Inc. v. United States. [FN115] Once again, the Claims Court determined that denial of a permit was a taking. It rejected the government's argument that a claimant must prove there are no profitable alternative uses for the property other than the proposed development before a taking can be established. The claimant need only establish a prima facie case, not disprove other uses, at least where the government offered little or no proof of other uses. Additionally, the court accepted the claimant's property valuation based on the highest and best use of the property prior to permit denial (i.e., as a residential development). It ordered the government to pay compensation of $2,658,000 plus interest from the date of the taking.

B. Executive Order on Regulatory Takings

Former President Reagan issued an Executive Order on regulatory takings in 1988. [FN116] The Order requires that agencies follow the rules announced in Nollan and First English, and that a “takings impact statement” be prepared before any proposed actions are taken regulating private property uses. The Order has been criticized as attributing too much weight to Nollan and First English, needlessly chilling the government's exercise of regulatory authority [FN117] in areas such as wetlands.

C. Takings Defense and Wetlands Regulation

In the area of wetlands law, takings claims are possible though the defense remains exceedingly difficult to establish. While Florida Rock and Loveladies Harbor have held that permit denials may constitute takings, both cases are easily distinguishable from average cases. Nollan, First English, and Lucas represent inroads for landowners, though they do not alter the fundamental stringent criteria for finding a regulatory taking. Because

natural resources regulation is an accepted and firmly entrenched aspect of state and federal regulatory systems, most permit denials are unlikely to be found to be takings. However, the courts' shift in perspective could lead to a change in regulatory policy. The Corps may shift to issuing permits conditioned by mitigation measures, rather than outright permit denial with the attendant takings risk.

VIII. OTHER DEFENSES

Most attempted landowner defenses to wetlands regulations have been rejected, or at least severely limited, by courts.

A. Estoppel

The general rule is that there is no estoppel against the government for erroneous or unauthorized actions or statements of its employees. However, many courts will be influenced by equitable considerations, particularly with respect to relief or takings issues, and criminal actions. [FN119] While misleading government conduct may not have direct legal consequences, it may still be a subjective factor in the court's ultimate decision.

B. Denial of Right to a Public Hearing

Both the CWA and the Rivers and Harbors Act have been held not to require formal adjudicatory hearings. [FN120] Public hearings on permit applications needn't be held unless specifically requested by interested parties. [FN121] Requests for hearing must be timely, [FN122] and refusal by the Corps will likely only result in a remand.

C. Preemption by Other Permits or State Lawsuits

In addition to federal authority, individual state agencies may have jurisdiction over wetlands. State and federal regulations will apply independently. Even if federal agencies determine that the area is not a wetland or the activity is exempt, the location or activity may come under state jurisdiction and require a state permit. Conversely, federal jurisdiction is not eliminated because a state does not assert jurisdiction. Neither a state wetlands permit, nor a §402 pollutant discharge permit (NPDES), of the Coastal Zone Management Act, [FN125] eliminates the requirements for a federal wetlands permit under §404. However, Corps regulations do require consideration of state and local determinations in deciding whether to grant a Corps permit.

Courts are split as to whether a license from the Federal Energy Regulatory Commission (FERC) eliminates the need for a Corps permit.

State and federal enforcement actions are also totally independent. Unless the federal government is a party to a state enforcement action, collateral estoppel is not a bar to federal authorities proceeding on the same matter. [FN128]

D. Selective Prosecution or Treatment

This defense has been routinely rejected. An exception may arise in cases of intentional racial discrimination.

[FN129]

E. Artificial Wetlands

Another argument frequently raised by landowners is that wetlands are artificial, and thus not deserving of protection. This defense has also been unsuccessful. Federal jurisdiction is determined by whether the site is at present wetlands, not by how it came to be wetlands. [FN130]

F. Vagueness of Wetlands Definition

Courts have rejected the allegation that the Corps definition of wetlands was too vague to understand and apply. [FN131]

IX. WATER RIGHTS AND WETLANDS PROTECTION: A NEW DIRECTION?

Wetlands regulation to date has focused on controlling development rather than protecting the water supplies vital to maintaining wetlands. Existing water law is not well suited to wetlands protection, particularly in the western U.S. where allocating water flows for wetlands means obtaining a legal right to use the water for that specific purpose. At present, state water law in the western U.S. is a powerful obstacle to comprehensive federal wetlands protection.

Most western water law consists of variations on the prior appropriation doctrine. Three elements are required: 1) an intent to appropriate water, 2) physical diversion, and 3) application of the water to a beneficial use. [FN132] Many states still insist on physical capture through diversion or storage, or at least some demonstrated means of possessing or controlling the water. [FN133] The concept of "beneficial use" has been expanded beyond agricultural and domestic uses, and now often includes recreation and fisheries. [FN134] Beneficial use also limits the quantity of the water right to whatever is reasonably required to accomplish its purpose, using reasonably efficient practices and without unnecessary waste. [FN135]

Water law in the west evolved to allow the fullest possible development of limited supplies of water. Diversion and collection were critical components of this overall plan. While the requirements of the prior appropriation doctrine severely limit nontraditional water uses such as scenic beauty or wetlands protection, several possibilities exist.

A. Appropriative Water Rights for Wetlands

Direct appropriation provides the best means of assuring adequate water for wetlands preservation. [FN136] In most western states it may be necessary to establish physical control of the water, possibly through storage or physical diversion from a stream. [FN137] Water quality, or wildlife management objectives may be designated as beneficial uses; specifically Nevada explicitly recognizes wetlands protection as a beneficial use. [FN138]

The land containing wetlands may have to be owned or controlled by the entity holding the water right. [FN139] Rights held by private individuals or conservation groups should present little problem. However, states that recognize wetlands or wildlife protection only in conjunction with a specially created instream flow program may

limit such water uses to public agencies in connection with those programs. [FN140]

State or federal wildlife management agencies may hold appropriative water rights, with indirect protection of wetlands. [FN141] Transfer of water rights may also be used to shift water to wetlands protection. [FN142]

B. Restricting New Appropriations or Changes of Rights

Wetlands water may also be protected by assuring all new appropriations or changes are conditioned by requirements that existing wetlands not be adversely affected. This may arise from, or be in addition to conditions ensuring wildlife not be adversely affected.

State public interest review may be extended to wetlands protection, though in practice, most states have severely limited the public values applied by this review. [FN143] Each would have to be carefully evaluated for impacts to wetlands. [FN144]

If federal permission is required, NEPA review may be triggered. [FN145] Mitigation of adverse environmental effects under NEPA can help to avoid further loss of wetland areas. However, unless mitigation requirements include acquisition of water rights necessary to support wetlands, this cannot be totally effective in providing long-term protection for wetlands-sustaining water.

C. State Instream Flow Laws

Most western states have modified their water allocation systems to protect certain recognized instream uses. [FN146] Several approaches have developed, including 1) withdrawal of designated streams or water bodies from appropriation, 2) reservations of specified quantities of unappropriated water for some period of time, 3) protected minimum flow levels, 4) direct appropriation for instream uses, 5) public interest review of water rights applications, 6) application of the public trust doctrine to review of new or existing water rights, and 7) permanent or temporary transfer of existing consumptive water rights to instream flow uses.

These programs hold great potential for wetlands protection, without requiring water diversion or impoundment. However, they're presently underdeveloped and narrowly utilized. In most states, the primary (or even exclusive) purpose of instream flow laws is to protect fisheries. [FN147] Some statutes have been construed broadly enough to protect wildlife or wildlife habitat, indirectly extending protection to wetlands. [FN148]

Reservations or minimum flow recommendations may be utilized by legislatures, agencies, or individuals to guarantee wetlands-sustaining instream flows. [FN149] In states where wetlands are maintained by groundwater or periodic surface inundation, a broader view of instream flow protection is required. [FN150]

A major limitation is the junior status of protected water appropriations. [FN151] One option is direct conversion of existing water rights to instream flow rights. Regardless of the approach, nonconsumptive uses such as wetlands protection require adequately funded state and/or federal water rights acquisition programs.

X. CONCLUSION

Wetlands law is a complex and often bewildering assortment of federal and state legislation, regulation, and unofficial policies. Despite governmental attempts to control development, significant losses of wetlands acreage and function continues. As pressure to increase protection of these valuable resources mounts, the breadth of wetlands law will develop and expand even further.

By focusing on land use changes and ignoring hydrology, the CWA §404 addresses only a small portion of total wetland conversions. New directions for wetlands law, such as expanding definitions of water rights, will likely arise in the near future. Pending legislation in Congress will at least provide a forum for the continuing debate over how wetlands should be protected.

[FN1]. Council on Environmental Quality, Our Nation's Wetlands, An Interagency Task Force Report, p. 2 (1978), Gov't Printing Office No. 041-011-00045-9 (hereinafter CEQ Report).

[FN2]. Id.

[FN3]. Office of Technology Assessment, Wetlands: Their Use and Regulation, p.56 (Mar. 1984) (Washington, D.C.: U.S. Congress, Office of Technology Assessment, OTA-0-206) (hereinafter OTA Wetlands Report).

[FN4]. CEQ Report, supra note 1, at 23.

[FN5]. Id.

[FN6]. Benforado, Wetlands for Wastewater Treatment, EPA JOURNAL, Oct. 1983, at 14.

[FN7]. CEQ Report, supra note 1, at 27.

[FN8]. U.S. Fish and Wildlife Service, Wetlands of the United States, Current Status and Recent Trends, p. 29 (1984) (hereinafter Wetlands Trends).

[FN9]. OTA Wetlands Report, supra note 3, at 3 (Summary Report at 6).

[FN10]. T.E. Dahl and C.E. Johnson, Status and Trends of Wetlands in the Conterminous United States, Mid-1970s to Mid-1980s, Executive Summary (1991) (U.S. Department of the Interior, Fish and Wildlife Service) (hereinafter 1991 Wetlands Trends).

[FN11]. OTA Wetlands Report, supra note 3, at 3 (Summary Report at 7)

[FN12]. 1991 Wetlands Trends, supra note 10, Executive Summary.

[FN13]. 33 U.S.C. § 403 (1986).

[FN14]. 33 U.S.C. §§ 1251-1387 (1987).

[FN15]. 33 U.S.C. § 1344(a) (1986).

[FN16]. 33 U.S.C. § 1344(b)(1) (1986).

[FN17]. 33 U.S.C. § 1344(c) (1986).

[FN18]. 43 Op. Att'y Gen. 15 (1979) (Opinion of Attorney General Benjamin Civiletti); Avoyelles Sportsmen's League v. Marsh, 715 F.2d 897, 905, n.12 (5th Cir. 1983); In re Alameda County Assessor's Parcels, 672 F. Supp. 1278, 1285 (N.D. Cal. 1987)

[FN19]. Notable EPA vetoes include James City County, VA (July 10, 1989), subsequently reversed in James City County v. U.S. EPA, 758 F. Supp. 348 (E.D. Va. 1991), aff'd in part and remanded, No. 91-2612, 955 F.2d 254 (4th Cir. 1992); Sweden Swamp site, Attleboro, MA (May 13, 1986).

[FN20]. Newport Galleria Group v. Deland, 618 F. Supp. 1179, 1185 (D.D.C. 1985); Reid v. Marsh, 20 Env't Rep. Cas. (BNA) 1337 (N.D. Ohio 1984); Bersani v. U.S. EPA, 674 F. Supp. 716 (D.Mass. 1986); Bersani v. U.S. EPA, 674 F. Supp. 405, 20 Envtl. Rep. Cas. (BNA) 1337 (N.D.N.Y. 1987), aff'd, 850 F.2d 36 (2d Cir. 1988); Creppel v. U.S. Army Corps of Engineers, 19 Envtl. Rep. (Envtl. Law Inst.) 20134 (E.D. La. 1988); Reilly, 20 Envtl. L. Rep. (Envtl. Law Inst.) 20938 (D. Colo. 1990); United States v. Hughes, 744 F. Supp. 1546 (S.D. Ga. 1990).

[FN21]. Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning Clean Water Act Section 404(q) (Aug. 24, 1992).

[FN21.1]. §404(c) expresses particular concern for municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas.

[FN22]. 33 C.F.R. § 323.1 (1992).

[FN23]. 33 C.F.R. § 328.3 (1992).

[FN24]. 33 C.F.R. § 328.3(b) (1992).

[FN25]. United States v. Fleming Plantations, 12 Env't Rep. Cas. 1705, 9 Envtl. L. Rep. (Envtl. L. Inst.) 20103 (E.D.La. 1978)

[FN26]. United States v. Riverside Bayview Homes, Inc., 474 U.S. 121 (1985).

[FN26.1]. Regulatory Guidance Letter, No. 86-9, Clarification of "Normal Circumstances" in the Wetland Definition (Aug. 27, 1986).

[FN27]. 56 Fed. Reg. 40,466 (Aug. 14, 1991).

[FN27.1]. E.g., Wickard v. Filburn, 317 U.S. 111 (1942); Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241 (1964). For specific interstate commerce rulings under the CWA, see Quivira Mining Co., v. U.S. EPA, 765 F.2d 126 (10th Cir. 1985); 742 F.2d 799 (10th Cir. 1984).

[FN28]. 51 Fed. Reg. 41,217 (Nov. 13, 1986).

[FN29]. Hoffman Homes, Inc. v. United States Environmental Protection Agency, 961 F.2d 1310 (7th Cir. 1992).

[FN30]. Tabb Lakes v. United States, 20 Envtl. L. Rep. (Envtl. L. Inst.) 20008 (4th Cir. 1989).

[FN30.1]. 33 U.S.C. § 1311(e) (1987).

[FN31]. Weiszmann v. Dist. Eng'r, U.S. Corps of Eng'rs, 526 F.2d 1302, 1305 (5th Cir. 1976).

[FN32]. Reid v. Marsh, 20 Env't Rep. Cas. 1337, 1341, 14 Envtl. L. Rep. (Envtl. L. Inst.) 20231, 20233-34 (N.D. Ohio 1984)

[FN33]. United States v. Sinclair Oil Co., 767 F. Supp. 200 (D. Mont. 1990).

[FN34]. Memorandum to all Division and District Counsel from Lance Wood, Assistant Chief Counsel (Apr. 10, 1990). The basis upon which jurisdiction is not eliminated is the "normal circumstances" criterion.

[FN35]. Save Our Community v. United States Environmental Protection Agency, 971 F.2d 1155 (5th Cir. 1992).

[FN36]. Regulatory Guidance Letter, No. 90-8, Applicability of Section 404 to Pilings (Dec. 14, 1990).

[FN37]. Regulatory Guidance Letter, No. 90-5, Landclearing Activities Subject to Section 404 Jurisdiction (July 18, 1990).

[FN38]. 33 C.F.R. § 328.3(a)(7) (1992).

[FN39]. Memorandum for the Field, Clean Water Act Section 404 Regulatory Program and Agricultural Activities, US Army Corps of Engineers and US Environmental Protection Agency (May 3, 1990).

[FN40]. Id.

[FN41]. Id.

[FN42]. 40 C.F.R. § 232.3(c)(1)(ii)(B) (1992); see also Memorandum, supra note 39, at 3.

[FN43]. United States v. Zanger, 767 F. Supp. 1030 (N.D. Cal. 1991).

[FN44]. Regulatory Guidance Letter, No. 87- 7, Section 404(f)(1)(C) Statutory Exemption for Drainage Ditch Maintenance (Aug. 17, 1987).

[FN45]. 40 C.F.R. § 232.3(c)(2) (1992).

[FN46]. 40 C.F.R. § 232.3(d)(3)(ii) (1992).

[FN47]. 33 U.S.C. § 1344(f)(2) (1986).

[FN48]. Regulatory Guidance Letter, No. 87- 9, Section 404(f)(1)(C) Statutory Exemption for Construction or Maintenance of Farm or Stock Ponds (Aug. 27, 1987).

[FN49]. 33 U.S.C. § 1344(f)(2) (1986).

[FN50]. 57 Fed. Reg. 52,716 (1992) (to be codified at 40 C.F.R. pt. 230) (proposed Nov. 4, 1992).

[FN51]. Telephone Interview, Wetlands and Aquatic Resources Regulatory Branch, US EPA (May 20, 1993).

[FN52]. 33 U.S.C. § 1344(e)(1) (1986).

[FN53]. 33 C.F.R. § 330, app. A(C) (1992).

[FN54]. 33 C.F.R. §§ 330.1(d), 330.4(e) and 330.5 (1992).

[FN55]. 33 C.F.R. § 325.1(b) (1992).

[FN56]. 33 C.F.R. § 325.2(a)(2) (1992).

[FN57]. 33 C.F.R. § 325.2(a)(3) (1992).

[FN58]. 33 C.F.R. § 327 (1992).

[FN59]. 33 C.F.R. § 325.2(a)(6) (1992).

[FN60]. 33 C.F.R. §§ 320.4(j)(2) and 325.2(a)(6) (1992).

[FN61]. 33 C.F.R. § 320.4(c) (1992).

[FN62]. Sierra Club v. Alexander, 484 F. Supp. 455 (N.D.N.Y. 1980), aff'd, 633 F.2d 206 (2d Cir. 1981).

[FN63]. U.S. Army Corps of Engineers, Department of the Army Regulatory Program: An Overview (March 1986).

[FN64]. 33 C.F.R. § 320.4(a)(1) (1992).

[FN65]. Id.

[FN66]. 33 C.F.R. § 320.4(a) (1992).

[FN67]. 33 C.F.R. § 320.4(a) (1992).

[FN68]. 33 C.F.R. § 320.4(b)(1) (1992).

[FN69]. 33 C.F.R. § 320.4(b)(4) (1992).

[FN70]. 33 U.S.C. § 1344(b)(1) (1986).

[FN71]. 33 C.F.R. § 320.4(b)(4) (1992).

[FN72]. Regulatory Guidance Letter, No. 86-5, Implementation of the Section 404(q) Memoranda of Agreement (MOA) with the Department of Interior (DOI), the Environmental Protection Agency (EPA) and the Department of Commerce (DOC) (May 23, 1986).

[FN73]. 40 C.F.R. § 230.10(a) (1992).

[FN74]. 40 C.F.R. § 230.10(a)(3) (1992).

[FN75]. Id.

[FN76]. 33 C.F.R. § 325, app. B(9)(c)(4) (1992).

[FN77]. 40 C.F.R. § 230.10(a)(3) (1992).

[FN78]. Bersani v. United States Environmental Protection Agency, 674 F. Supp. 405 (N.D.N.Y. 1987), aff'd, 850 F.2d 36 (2d Cir. 1988), cert. denied, 489 U.S. 1089 (1989).

[FN79]. Hough v. Marsh, 557 F. Supp. 74 (D. Mass. 1982).

[FN80]. Louisiana Wildlife Fed., Inc. v. York, 603 F. Supp. 518, 528 (W.D. La. 1984), aff'd in part, vacated in part and remanded, 761 F.2d 1044 (5th Cir. 1985).

[FN81]. Korteweg v. U.S. Army Corps of Engineers, 650 F. Supp. 603, 605 (D. Conn. 1986).

[FN82]. James City County v. United States Environmental Protection Agency, 758 F. Supp. 348, (E.D. Va. 1990), aff'd in part and remanded, 955 F.2d 254 (4th Cir. 1992). The EPA veto was reversed on the basis of practicable alternatives, but the court remanded to EPA for a determination of whether to veto on grounds of unacceptable adverse impacts.

[FN83]. Draft Regulatory Guidance Letter, Section 404(b)(1) Guidelines: Project Purpose/Alternatives Analysis (June 1992).

[FN84]. Id. at 8.

[FN85]. 40 C.F.R. § 230.10(c) (1992).

[FN86]. Regulatory Guidance Letter, No. 87-2, Use of the Word "Significant" in Permit Documentation (March 30, 1987).

[FN87]. THE CONSERVATION FOUNDATION, ISSUES IN WETLANDS PROTECTION: BACKGROUND PAPERS PREPARED FOR THE NATIONAL WETLANDS POLICY FORUM, at 218 (1990).

[FN88]. Id. at 222.

[FN89]. Id. at 226.

[FN90]. Memorandum of Agreement between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation under the Clean Water Act Section 404(b)(1) Guidelines (Nov. 15, 1989).

[FN91]. Id. at Part II.C.

[FN92]. Id. at Part III.B.

[FN93]. Id. at Part II.C.3.

[FN94]. Id.

[FN95]. Id. at Part II.D.

[FN96]. 33 U.S.C. §§ 1319 and 1365 (1987).

[FN97]. 33 U.S.C. § 1319(a)(1) (1986); 33 U.S.C. § 1344(s) (1986).

[FN98]. 33 U.S.C. § 1319(d) (1986).

[FN99]. 33 U.S.C. § 1319(g) (1986).

[FN100]. 33 U.S.C. § 1319(b) (1986); 33 U.S.C. § 1344(s) (1986).

[FN101]. Regulatory Guidance Letter, No. 88-4, Enforcement (Apr. 7, 1988).

[FN102]. Hoffman Group, Inc. v. EPA, 902 F.2d 567 (7th Cir. 1990); Southern Pines Assocs. v. United States, 912 F.2d 713 (4th Cir. 1990); McGowan v. United States, 747 F.Supp. 539 (E.D. Mo. 1990); Route 26 Land Dev. Assoc. v. United States, 756 F.Supp. 532,539,540 (D.Del. 1990) aff'd, 941 F.2d 1163 (3d Cir. 1991).

[FN103]. Bayou Des Familles Dev. Corp. v. U.S. Corps of Eng'rs, 541 F. Supp. 1025 (E.D.La. 1982); United States v. Johns, 552 F.Supp. 1367 (W.D.La. 1982), aff'd, 852 F.2d 1278 (5th Cir. 1988), cert. denied, 489 U.S. 1016 (1989).

[FN104]. See Leslie Salt Co. v. United States, 660 F.Supp. 183, 185 (N.D. Cal. 1987), rev'd on other grounds, 896 F.2d 354 (9th Cir. 1990), cert. denied, 111 S.Ct. 1089 (1991).

[FN105]. Shoreline Assoc. v. Marsh, 555 F. Supp. 169, 172-173 (D. Md. 1983), aff'd, 725 F.2d 677 (4th Cir. 1984); Friends of the Earth v. Hintz, 800 F.2d 822, 828-829 (9th Cir. 1986).

[FN106]. For cases allowing de novo review, see County of Suffolk v. Secretary of the Interior, 562 F.2d 1368 (2d Cir. 1977); Gorsuch, 699 F.2d 157, 159, n.2 (4th Cir. 1983); Isaak Walton League v. Marsh, 655 F.2d 346, 369 (D.C. Cir. 1981). For cases restricting review to the administrative record, see Sierra Club v. U.S. Army Corps of Engineers, 772 F.2d 1043 (2d Cir. 1985); York, 603 F. Supp. 518, 526-527 (W.D.La. 1984), vacated in part and remanded, 761 F.2d 1044 (5th Cir. 1985), aff'd in part,

[FN107]. 5 U.S.C. § 706(2)(a) (1986).

[FN108]. E.g., Avoyelles Sportsmen's League, Inc. v. Marsh, 715 F.2d 897, 906 (5th Cir. 1983).

[FN109]. 438 U.S. 104 (1978).

[FN110]. 483 U.S. 825 (1987).

[FN111]. 482 U.S. 304 (1987).

[FN112]. 112 S.Ct. 2886 (1992).

[FN113]. Deltona Corp. v. United States, 657 F.2d 1184 (Ct. Cl. 1981), cert. denied, 455 U.S. 1017 (1982).

[FN114]. Florida Rock Industries, Inc. v. United States, 8 Cl. Ct. 160, 22 Env't Rep. Cas. (BNA) 1943 (Cl. Ct. 1985), 15 Envtl. L. Rep. (Envtl. L. Inst.) 20626, aff'd in part, vacated in part and remanded, 791 F.2d 893 (2d Cir. 1986).

[FN115]. Loveladies Harbor v. United States, 15 Cl. Ct. 381, 19 Envtl. L. Rep. (Envtl L. Inst.) 20092 (Cl. Ct. 1988).

[FN116]. Exec. Order 12,630, 53 Fed. Reg. 8859 (1988).

[FN117]. J. Jackson and L. Abaugh, A Critique of the Takings Executive Order in the Context of Environmental Regulation, 18 Envtl. L. Rep. (Envtl. L. Inst.) 10463 (Nov. 1988); J. McElfish, Jr., The Takings Executive Order: Constitutional Jurisprudence or Political Philosophy?, 18 Envtl. L. Rep. (Envtl. L. Inst.) 10474 (Nov. 1988).

[FN118]. United States v. Permenter, 6 Envtl. L. Rep. (Envtl. L. Inst.) 20,049, 20,051 (D.S.C. 1975); see also Deltona Corp. v. Alexander, 682 F.2d 888, 891 (11th Cir. 1982).

[FN119]. United States v. Martin, 517 F. Supp. 211 (D.S.C. 1981); United States v. Huebner, 752 F.2d 1235, 1244-1245 (7th Cir. 1985), cert. denied, 474 U.S. 817 (1985); United States v. Pennsylvania Indus. Chem. Corp., 411 U.S. 655 (1973)

[FN120]. Buttrey v. United States, 690 F.2d 1170 (5th Cir. 1982), cert. denied, 461 U.S. 927 (1983); Taylor v. Dist Eng'r, U.S. Corps of Eng'rs, 567 F.2d 1332, 1338 (5th Cir. 1978)

[FN121]. Boles v. Onton Dock, Inc., 659 F.2d 74, 76 (6th Cir. 1981).

[FN122]. Quinones Lopez v. Coco Lagoon Dev. Corp., 562 F. Supp. 188, 193 (D.P.R. 1983).

[FN123]. Minnehaha Creek Watershed Dist. v. Hoffman, 597 F.2d 617, 627 (8th Cir. 1979; United States v. Bd. of Trustees, 531 F. Supp. 267, 270, 273-274 (S.D. Fla. 1981) United States v. Dimpl, 583 F. Supp. 483, 495-496 (D.N.J. 1984)

[FN124]. Sun Enterprises, Ltd. v. Train, 394 F.Supp. 211, 224 (S.D.N.Y. 1975) aff'd, 532 F.2d 280 (2d Cir. 1976).

[FN125]. United States v. Ciampitti, 583 F. Supp. 483, 496-497 (D.N.J. 1984); Loveladies Harbor, Inc. v. Baldwin, 751 F.2d 376 (3d Cir. 1984)

[FN126]. 33 C.F.R. § 320.4(j) (1992).

[FN127]. Scenic Hudson Preservation Conference v. Callaway, 370 F. Supp. 162 (S.D.N.Y. 1973), aff'd, 499 F.2d 127 (2d Cir. 1974)

[FN128]. United States v. Alleyne, 454 F. Supp. 1164 (S.D.N.Y. 1978).

[FN129]. Id.

[FN130]. United States v. Ciampitti, 583 F. Supp. 483, 494 (D.N.J. 1984).

[FN131]. Leslie Salt Co. v. United States, 896 F.2d 354 (9th Cir. 1990).

[FN132]. For a concise summary of prior appropriation law, see A.D. TARLOCK, LAW OF WATER RIGHTS AND RESOURCES (1988).

[FN133]. Colorado River Water Conservation Dist. v. Rocky Mountain Power Co., 174 Colo. 309, 486 P.2d 438 (1971), cert. denied, 405 U.S. 996 (1972); Fullerton v. California State Water Resources Control Bd., 90 Cal. App. 3d 590, 153 Cal. Rptr. 518 (1979)

[FN134]. Lawrence J. MacDonnell et al., Wetlands Protection and Water Rights, 1990 NATURAL RESOURCES LAW CENTER, UNIV. OF COLORADO SCHOOL OF LAW, at 3 (hereinafter NRLC Report).

[FN135]. Id. See also COLO. REV. STAT. § 37-92-103(4) (1990).

[FN136]. NRLC Report, supra note 134, at 13.

[FN137]. Id. at 8.

[FN138]. Id. See also NEV. REV. STAT. § 553.023 (Supp. 1989).

[FN139]. NRLC Report, supra note 134, at 8-9.

[FN140]. Id.

[FN141]. Id.

[FN142]. Id.

[FN143]. Id.

[FN144]. Id. at 10.

[FN145]. Id. See also National Environmental Policy Act, 42 U.S.C. §§ 4321-4335 (1977 and Supp. 1989).

[FN146]. NRLC Report, supra note 134, at 10.

[FN147]. Id.

[FN148]. Id.

[FN149]. Id.

[FN150]. Id.

[FN151]. Id. at 11.

APPENDIX A

NATIONWIDE PERMITS

1. Aids to Navigation

Placement of aids and regulatory markers per Coast Guard requirements.

2. Structures in Artificial Canals

Principally residential developments. Connection of canal to navigable water previously authorized.

3. Maintenance

Repair, rehabilitation, or replacement to original condition of structures destroyed by storms, floods, fire, etc. Must be commenced within two years of damage.

4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities

Authorizes pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, clam and oyster digging, etc. Includes shellfish seeding outside of wetlands and shallows. Does not authorize artificial reefs or impoundments for holding motile species.

5. Scientific Measurement Devices

Staff gages, tide gages, water recording devices, water quality testing and improvement devices, etc.

6. Survey Activities

Includes core sampling, seismic exploratory operations, plugging of seismic shot holes, etc. Does not include

drilling and discharge from oil and gas exploration.

7. Outfall Structures

Outfall and associated intake structures for effluent regulated under NPDES program.

8. Oil and Gas Structures

Structures for exploration, production, and transportation on federally leased areas of outer continental shelf.

9. Structures in Fleeting and Anchorage Areas

Structures to facilitate moorage of vessels in areas established for such use by US Coast Guard.

10. Mooring Buoys

Non-commercial, single boat.

11. Temporary Recreational Structures

Structures placed for recreational use during specific events such as competitions, races, or seasonal use.

12. Utility Line Backfill and Bedding

Includes outfall and intake structures required for utility line construction.

13. Bank Stabilization

Small scale activities necessary for erosion prevention.

14. Road Crossing

Fill for roads crossing waters of the US.

15. U.S. Coast Guard Approved Bridges

Discharges incidental to the construction of US Coast Guard authorized bridges across navigable waters. Causeways and approach fills not included.

16. Return Water From Upland Contained Disposal Areas

Return water from an upland, contained dredged material disposal area.

17. Hydropower Projects

Discharges associated with small (<5000 KW) hydropower projects at existing reservoirs, provided projects are licensed by FERC or exempted from FERC licensing. Requires notification.

18. Minor Discharges

Covers discharges <25 cubic yards, losses totalling >=0.1 acre. May require notification and/or delineation. Must be single and complete project, not for purposes of stream diversion.

19. Minor Dredging

Covers dredging of <25 cubic yards for a single and complete project.

20. Oil Spill Cleanup

Activities required for the containment and cleanup of oil and hazardous substances subject to the National Oil and Hazardous Substances Pollution Contingency Plan.

21. Surface Coal Mining Activities

Includes activities authorized by Dept. of Interior, Office of Surface Mining, or states with SMCRA approved programs. Requires notification and possible delineation.

22. Removal of Vessels

Temporary structures or minor discharges required for removal of wrecked, abandoned, or disabled vessels, or removal of man-made obstructions to navigation. Requires compliance with “Historic Properties” condition.

23. Approved Categorical Exclusions

Activities undertaken, assisted, authorized, regulated, funded, or financed by another federal agency or department which have been excluded from environmental documentation due to no significant effect on the human environment. May require public comments and conditions.

24. State Administered Section 404 Programs

Any activity permitted by a state authorized to administer its own §404 permit program.

25. Structural Discharge

Discharges of material such as concrete, sand, rock, etc., into tightly sealed forms where used as structural support for pile supported structures (e.g. piers and docks) and linear projects (bridges, transmission line footings, walkways, etc.).

26. Headwaters and Isolated Waters Discharges

Discharges into headwaters and isolated waters provided 1) loss totals <10 acres, 2) notification and delineation done for losses of >1 acre, 3) discharges are part of single and complete project. (Includes special reference to real estate subdivisions.)

27. Wetland and Riparian Restoration and Creation Activities

Activities associated with restoration of altered and degraded non-tidal wetlands or riparian areas, and creation of wetlands or riparian areas on private or federal lands.

28. Modifications of Existing Marinas

Reconfigurations of existing docking facilities within an authorized marina area.

29-31. Reserved

32. Completed Enforcement Actions

Any structure, work or discharge undertaken in accordance with terms of a final federal action under §404 of Clean Water Act, or §10 of Rivers and Harbors Act.

33. Temporary Construction, Access and Dewatering

Temporary structures and discharges necessary for construction activities or access fill or dewatering of construction sites. Requires notification, including a restoration plan. Special conditions may be added.

34. Cranberry Production Activities

Discharges associated with expansion, enhancement, or modifications at existing cranberry production operations provided 1) <10 acres disturbed, 2) notification followed, 3) no net loss of wetlands.

35. Maintenance Dredging of Existing Basins

Excavation and removal of accumulated sediment for maintenance of existing marina basins, canals, and boat slips.

36. Boat Ramps

Activities required for construction of boat ramps provided 1) discharge <=50 cubic yards, 2) boat ramp <=20' wide, 3) base material is crushed stone, gravel, etc., 4) only area necessary for site preparation is excavated, and material is removed upland, 5) no material is placed in special aquatic sites.

37. Emergency Watershed Protection and Rehabilitation

Work done by Soil Conservation Service under its Emergency Watershed Protection Program, or by Forest Service under its Burned-Area Emergency Rehabilitation Handbook.

38. Cleanup of Hazardous and Toxic Waste

Specific government sponsored or ordered activities required to contain, stabilize, or remove hazardous or toxic waste. Requires notification, plus possible delineation.

39. Reserved

40. Farm Buildings

Discharges into farmed wetlands for building or agricultural related structures necessary for farming activities. Discharges cannot exceed 1 acre.

GENERAL CONDITIONS

Required for any authorization by a nationwide permit to be valid.

1. Navigation

Activity may cause no more than minimal adverse effects.

2. Proper Maintenance

Structure or fill must be properly maintained, including ensuring public safety.

3. Erosion and Siltation Controls

Must be used and maintained. All exposed soil and fills must be permanently stabilized at earliest possible date.

4. Aquatic Life Movements

Activity may not disrupt movement of indigenous aquatic species.

5. Equipment

Heavy equipment must be placed on mats, or soil disturbance otherwise minimized.

6. Regional and Case-By-Case Conditions

Activity must comply with both types conditions.

7. Wild and Scenic Rivers

No activity in any component of a designated, or "study river," within National Wild and Scenic River System.

8. Tribal Rights

No impairment of reserved tribal rights (includes water rights, and treaty hunting and fishing).

9. Water Quality Certification

In certain states, certification must be obtained or waived.

10. Coastal Zone Management

In certain states, consistency concurrence must be obtained or waived.

11. Endangered Species

No activity allowed which is likely to jeopardize the existence of an endangered species, or proposed endangered species, or which is likely to adversely modify critical habitat.

12. Historic Properties

No activity allowed which may affect listed or proposed historic properties.

13. Notification

Notification specifications outlined.

§404 ONLY CONDITIONS

Following conditions apply only to activities involving discharges of dredged or fill material.

1. Water Supply Intakes

No discharges in proximity to a public water supply intake except for repairs.

2. Shellfish Production

No discharges in areas of concentrated shellfish production, unless related to authorized shellfish harvesting.

3. Suitable Material

No discharges consisting of unsuitable material (e.g. trash, debris, car bodies, etc.). Discharges must be free of toxic pollutants.

4. Mitigation

Discharges must be minimized on-site, or mitigated.
5. Spawning Areas
Discharges during spawning season must be avoided to the greatest extent practicable.
6. Obstruction of High Flows
To the greatest extent practicable, discharges must not permanently restrict normal high flows or relocate water.
7. Adverse Impacts From Impoundments
If discharge creates an impoundment, adverse impacts must be minimized.
8. Waterfowl Breeding Areas
Discharges into migratory breeding areas must be avoided to the greatest extent practicable.
9. Removal of Temporary Fills
Temporary fills must be removed and areas returned to their preexisting elevation.

Appendix B

STATEMENT OF FINDINGS

Determination of Compliance with 40 CFR 230.10(a) of the Section 404(b)(1) Guidelines

Applicant: Adam's Rib Recreation Area
Application No: 9561
Date: February 22, 1993

The Sacramento District of the U.S. Army Corps of Engineers has been processing a Section 404 application to construct the Adam's Rib Recreation Area (ARRA) in Eagle County, Colorado. As currently proposed, the applicant is requesting a permit to place fill into 45.81 acres of wetland; a permit is required pursuant to the Clean Water Act.

BACKGROUND

In February 1987, the Corps received a Section 404 permit application from Hospital Building Equipment (HBE) Corporation to construct ARRA 17 miles south of Eagle, Colorado. HBE subsequently did business as ARRA, a subsidiary of HBE.

As originally proposed in 1987 and described in the dEIS, ARRA would require the fill of 48.6 acres of wetland for Alternative 8 and 69.9 acres of wetland fill for Alternative 2. Alternative 2 includes approximately 18 acres of fill at the golf course, located further down-valley from Vassar Meadow. The wetland mapping has subsequently refined the current proposal, a modification of Alternative 8, entails the fill of 45.81 acres of wetland. Except for minor road crossings in other project areas, all of this fill would occur in the Vassar Meadow area.

The wetlands in Vassar Meadow primarily consist of montane sedge/willow wetland subject to Corps jurisdiction pursuant to Section 404(b) of the Clean Water Act. That Section 404(b)(1) Guidelines have identified wetlands as special aquatic sites. The Corps has completed an in-house evaluation of the wetland functions and values of the Vassar Meadow wetlands and has concluded that all functions and values identified in the Wetland Evaluation Technique rated moderate or high. The U.S. Fish and Wildlife Service and the U.S. Environmental Protection Agency have also

indicated that the wetlands in Vassar Meadow perform important functions and are aquatic resources of national significance. Wright Water Engineers (WWE), an ARRA consultant, portrays the Vassar Meadow wetlands, except for a riparian corridor it has proposed for preservation, as common and of low value. WWE has submitted a report in support of their contentions.

Although the stated functions and values of the wetlands in Vassar Meadow are important, this is not the central issue or consideration in the current decision. However, this may become an important issue in the future if the Section 404 permit is pursued and considerable wetland fill is still proposed in Vassar Meadow.

The applicant has identified ARRA as a four-season resort that includes the following features in Vassar Meadow, unless identified otherwise:

A ski area on Adam Mountain and Mount Eve for 9,000 skiers-at-one-time (SAOT) with lift facilities located in Vassar Meadow, Woodrun/Lower Valley and Fisher Gulch;

Residential development consisting of 5,640 varied units which is segregated into a high density Vassar Meadow Core with 1,020 hotel/lodge units and 230 condominiums and lower density Vassar Meadow Perimeter with 320 hotel/lodge units, 1,296 condominiums, and 218 townhouses;

250,000 square feet of commercial space;

Convention center;

Performing arts center;

Amphitheater;

Health Facility/skating rink;

Chapel;

Athletic field, softball field and tennis courts; and

Monorail

27 to 36 holes of golf (not in Vassar Meadow).

Information of significant dates in the processing of this application is attached to this Statement of Findings.

PROJECT PURPOSE

Except for minor impacts associated with road construction, all proposed fill in wetlands would facilitate construction of commercial and residential facilities. Therefore, the Corps has determined that the project purpose for analysis under the Section 404(b)(1) Guidelines is construction of a residential and commercial development attendant to a four-season resort. The project purpose was used by the Corps to evaluate potential alternatives, as required by the Section 404(b)(1) Guidelines.

CURRENT ISSUE

In order for the applicant to sustain his contention that he must build the project, as proposed, he must demonstrate that no practicable alternatives exist. “Practicable”, as used in the Guidelines, “...means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.” The Corps has evaluated alternatives to the ARRA proposal in terms of practicability.

The one issue to be addressed at this juncture of the permit process is whether ARRA has avoided on-site impacts by minimizing the amount of fill in Vassar Meadow wetlands. The presumption established in the Section 404(b)(1) Guidelines, at 40 C.F.R. 230.10(a), is No other aspects of the Section 404(b)(1) Guidelines or the

public interest evaluation are being addressed at this time.

ARRA contends that no reduction of impacts to the wetlands in Vassar Meadow can be done because any change would render the project economically inviable due to an unacceptable increase in costs, infeasible logistical modifications and unavailable technology. To test ARRA's contention that on-site wetland impacts have been minimized and no other practicable alternatives exist, the Corps contracted with an economic consultant (ERA Economics Research Associates of San Francisco, California, and a resort development consultant, Sno-engineering Incorporated, formally with an office located in Park City, Utah. The Corps also conferred with personnel of Browne, Bortz & Coddington (BBC), another economic consultant that had previously worked for the Corps on this project. ARRA has also submitted material from itself and a number of its consultants to support its contentions.

CORPS EVALUATION OF MONORAIL AND EXCESS UNITS

In April of 1991, the Corps began a series of economic modeling runs with ERA to investigate possible practicable alternatives. The Corps was specifically addressing the cost parameter of practicability. Two aspects of this modeling included 1) elimination of the monorail from the economic modeling with expansion of the proposed bus/van system as a substitute and 2) how to address disposal of units that could not be sold by the end of the 25-year run of the model (i.e., 380 excess condominium units in Vassar Meadow).

1) MONORAIL

Issue

The monorail has been identified by the applicant as a primary means of transport in the Vassar Meadow area and as a unique marketing tool. However, large front-end costs are involved. These costs have a substantial impact on the results of the economic modeling.

Applicant Perspective

ARRA believes that the monorail is an important portion of their overall transit system and would reduce guest's dependency on private automobiles which would help maintain good air quality in the East Brush Creek Valley. ARRA also contends that the monorail would be a unique marketing tool to sell real estate.

Corps Perspective

The Corps believes elimination of the monorail from the economic model is justified due to its high up-front costs (i.e., $7,000,000) which drives the applicant into marketing more units to pay for it. Since non-wetland areas in Vassar Meadow are already fairly concentrated with residential, commercial and recreational facilities and ARRA is reluctant to increase densities, additional units are proposed to be constructed in wetlands to maintain the desired unit densities and to finance the monorail. To include cost of the monorail in the economic modeling would set a very poor precedent of inflating early expenses to justify filling wetlands in order to pay for the amenity. Therefore, even if the monorail were to be built as a marketing tool, it should not be a factor in determining the least damaging

practicable alternative.

The Corps also believes that the monorail is unnecessary to meet transit needs within Vassar Meadow. A bus system will be necessary regardless of whether the rail system were built because of limited access of many of the residences to the system and the limited range of the monorail (i.e., only a linear track through the middle of Vassar Meadow). Therefore, a reasonable alternative would be to expand the bus/van system to accommodate transportation needs in Vassar Meadow. This also alleviates guest dependence on private vehicles. It should also be noted that none of the existing or proposed Colorado ski areas use this type of rail transport. Therefore, this is not typical of this type of development. In addition, most units that would be served by the monorail are located within walking distance (i.e., 1,500 feet) of the ski lifts.

Air quality studies indicated that the most significant problem would be wood-burning fireplaces. These have subsequently been eliminated from Vassar Meadow. Although an increase in bus and automobile use may be realized, the impacts of this on air quality has not been quantified.

It should be noted that this decision does not preclude the applicant from developing the monorail. Rather, the Corps finds it difficult to justify, per se, the additional filling of wetlands based upon the applicants assertion of a need of a “unique marketing devise”. The applicant has failed to demonstrate that the monorail is the only possible “unique marketing devise”.

2) EXCESS UNITS

Issue

According to the estimated absorption rate of residential products, there are 380 condominium units in Vassar Meadow that would not be sold by the end of the modeling period (i.e., 25 years). Therefore, it appears that excess units could be eliminated from wetlands in Vassar Meadow without affecting the economic viability of the project.

Applicant Perspective

The applicant states that all real estate products proposed in Vassar Meadow are necessary to support the economic viability of the project despite that, based on the ERA model, there are 380 condominium units in Vassar Meadow that can not be sold by the end of the 25-year economic evaluation period. If they were to be deleted, ARRA believes that these units should be deleted within the first 15 years of project evaluation. ARRA's rationalization is that the loss of these higher priced units (due to their proximity to the main village) will result in a reduced rate of sales of the remaining Meadow and Woodrun/Lower Valley, at least for the first 15 years of build-out.

Corps Perspective

The Corps believes that there are 380 more condominium units proposed in Vassar Meadow than are needed for economic viability of the project that elimination of these units from the wetlands in Vassar Meadow will have no effect on the sales rate of other units as long as other marketable property is available. Accordingly, the Corps believes that the economic modeling correctly assumed that these units would be excess at the end of the 25-year evaluation period since these units could not be sold within this time frame. The model must

account for these excess units and, therefore, they are assigned a present value at the end of the modeling period to close out revenues (i.e., "bulked out"). Although the model could continue to be run until all units are sold, this would not affect the results given the discounted values of these excess units. There is no evidence that loss of these bulk units would impact other sales as long as marketable property is available. Other units in Vassar Meadow that are proximate to the village core and the units in Woodrun/Lower Valley with ski in/out opportunities make all these properties highly marketable. It is also noted that there are 1,337 beds provided for employee housing in Vassar Meadow. These should have been, but were not, included in the economic modeling and identified as additional excess units as described on page 17 of this document.

The Corps has not identified any reason that there would be a reduction in the rate of sale of other units by deleting these units as long as there was sufficient product to sell. However, there would likely be a corresponding change in the applicant's marketing approach and phasing schedule to accommodate the change in developable land. Given the overall extent of this large project, we believe that a loss of 16% of the housing units in Vassar Meadow would not affect the overall financial viability of the project.

To support the Corps' position that the units should be "bulked out", we noted that ERA, with no Corps input, ran the model automatically taking the surplus condominiums off at the end of the 25-year period. It was only in the ARRA-developed scenarios that the decreased absorption rates were used. The Corps never concurred with this approach. Nevertheless, the Corps requested clarifications from both ERA and a previous economic consultant, BBC, located in Denver, Colorado, familiar with the economic model.

BBC indicated that it was reasonable and appropriate for the excess units to be deleted at the end of the modeling period, assuming that the absorption rates are accurate. It indicated that there could be an impact on absorption if these units were of a particular character that could not be offered anywhere else (i.e., limiting the "breadth" of the real estate available). Since these units are similar to other proposed units in Vassar Meadow and Woodrun/Lower Valley and the mix of product was not significantly altered in the modeling runs, this does not appear to be the case. In addition, these units are actually only representative of the products that could be offered. Since ARRA would only be selling land to other developers, it would be the prevailing market at the time of sale that would dictate what the developer would actually construct.

The Corps also contacted ERA and asked for the rationale of "bulking" the units out after 25 years. ERA personnel indicated that this is how excess real estate is normally handled to allow for completion of the modeling. Although the model could be continued until all units were sold, this would not change the results due to the heavy discounting in value realized after 25 years. This is premised on the fact that the absorption rates reflect all the units that could be sold and that the model does not identify what would be offered for sale first. This again reflects on the availability of marketable products and not on limitations of specific products, in specific locations, of particular specifications, sold at specific times, etc.

The Corps asked ERA to address the validity of ARRA's contentions that the absorption rates would be reduced. ERA was not convinced that ARRA's approach was appropriate considering how the economics were modeled. Of particular importance was that the values of units in Vassar Meadow were averaged. ERA did not want to model specifics as indicated in the above paragraph since it would impair flexibility and result in endless modeling runs to fine-tune the development. Therefore, other units could be marketed in lieu of the deleted units. ERA believed that "bulking out" the excess units was a better approach and the economics would only be impacted if there were not good product to sell.

The Corps also addressed ARRA's contention that these units were needed for project viability. Modest relocation and modifications resulted in restoring most of these units back into upland areas in the Vassar Meadow development. It is estimated that 322 condominiums, 40 townhouses and 120 lodge rooms can be restored without

appreciably affecting the design of the project.

RESULTS OF ECONOMIC STUDY

To test the applicant's position that all real estate products are necessary for economic viability of the project, the Corps had a series of runs made using ERA's proprietary economic model. Model runs included a base condition, three alternatives testing the costs and prices used in the model and four alternatives testing various levels of development in Vassar Meadow. The base run (Alternative 9) was made to update the costs and pricing to 1991 standards. This would serve as the base for the rest of the modeling. Alternatives 9A and 9B were run to test the sensitivity of the model relative to costs and pricing. The conclusion was that the model was more sensitive to prices rather than costs.

RESULTS OF THE SNO-ENGINEERING REPORT

Sno-engineering, Incorporated, with an office located in Park City, Utah at the time, was retained by the Corps to consider ARRA's contentions that elimination of units in Vassar Meadow would adversely affect the "village fabric" of the resort and render it inviable. This "village fabric" concept was first introduced by ARRA in March of 1992. The concept considers that the development must be continuous and open areas (e.g., wetland preserves) destroy this continuity, resulting in a perception of obstacles which discourage visitors from interacting and using resort facilities. ARRA contends that this would be sufficient to discourage sales of residential and commercial products and cause the development to fail.

Another concept that has been used by ARRA in describing aspects of the development is the need to create a "critical mass" to ensure success. It is alleged that "critical mass" is created in the central high-density core of the project where people and commercial activities are concentrated and large-scale interaction occurs. This activity gives the core vibrancy and people feel a sense of belonging.

Sno- engineering issued its report in June of 1992 concluding that the deletion of lodging units (304 condominiums, 80 townhouses and 120 lodge rooms) in six wetland areas totalling 30.13 acres would not affect the "critical mass" of the development. This is based on the skier capacity in Vassar Meadow, lift capacities and comparison of the pillows to skier ratio to other similar developments. Sno-engineering also attempted to maintain the overall number of units by relocating eliminated units further down valley.

Sno-engineering concluded that there originally would be 21,880 pillows at the resort, a ratio of 2.4 pillows per skier. This is considerably higher than industry averages of 0.8 to 1.4 pillows per skier. The U.S. Forest Service also used a similar approach and considered a bed base of 1.4 beds per skier (i.e., beds =pillows) in its EIS. A loss of 1,896 pillows from 304 condominiums, 80 townhouses and 120 lodge rooms would not adversely impact the bed base. Sno-engineering added that avoiding 30.13 acres of wetland by removing 504 units from Vassar Meadow appeared to be a viable project.

ARRA provided a rebuttal to the Sno-engineering report. ARRA contended that the avoidance of the six wetlands would necessitate not developing 94.7 acres of land in order to maintain the integrity of the wetlands. This is based the typparking ruction with consideraine., subsurfacity corridors acting as drains, etc.). This would result in the loss of 1,185 units instead of 504 as evaluated by Sno-engineering. ARRA also claimed that the eliminated units cannot be relocated and still be marketable; the pillow per skier analysis by Sno-engineering was unsubstantiated and ignored occupancy rates, local resident populations, percentage of skiers

generated and the loss of skiers to other slopes; the loss of units would adversely affect "critical mass"; removal of 504 units results in a project which is not viable; and the project has the necessary balance of products.

In a follow-up response, Sno-engineering reconsidered some of its original conclusions. In particular, Sno-engineering agreed that Vail is a good comparison for available products and resulting bed base. Using Vail averages and figures from the 100-day high season, ARRA developed a model showing the available bed base was much lower than indicated by the Sno-engineering calculations. After a site visit, Sno-engineering agreed that relocation of units to Fisher Gulch and Halfway did not appear feasible. However, Sno-engineering did not conclude that the "critical mass" would be affected with deletion of units from wetlands in Vassar Meadow. Additionally, the outer development areas in Vassar Meadow can be integrated with the core through an expanded integration of transportation corridors, such as pedestrian walkways or transportation facilities. The great majority of the units in Vassar Meadow would be within 1,500 feet of the ski lifts and village core. This is considered comfortable walking distance, even while wearing ski boots. Therefore, these units are not isolated or undesirable as contended by ARRA and the preserved wetlands are not an impediment to travel or destroy the "village fabric."

One aspect of these studies revolves around whether there is an excess bed base. Sno-engineering's approach indicates that ARRA is well in excess of existing industry averages. This was the same approach considered by the U.S. Forest Service in its EIS on ARRA. Although ARRA's approach was detailed, it primarily is just another way of considering bed base; ERA uses a third method.

ARRA contends that there is no surplus units in its development. This is based on the model used by ARRA. This model assumed an average for the 100-day high-season of 76% occupancy for the entire property management rental pool located close to skiing (i.e., the capacity was reduced 24% based on occupancy rates); the skier base was reduced 15% based on skiers visiting other resorts; and it was assumed that there was 2.8 beds per condominium.

There appears to be no reason to reduce the available bed base by 24%. This is reflective of the actual occupancy rates of the property management rental pool and not available capacity. That is, just because a unit is not occupied, it is still available, thereby contributing to the capacity to accommodate renters.

Sno-engineering also points out that ARRA figures of a 15% leakage to other resorts appears high. ARRA used this figure in its calculations, however, it only applies to Keystone where up to 15% leakage may occur. As Sno-engineering points out, this is largely due to the "Ski the Summit" multi-area ticketing and Summit Stage transportation link. ARRA is nearly 50 miles from the nearest alternative ski area (i.e., Vail) with no indications of multi-area ticketing or ARRA-sponsored transportation. Therefore, 15% appears to be an absolute maximum under the most optimal circumstances and the actual percentage for ARRA would be significantly less.

In addition, the beds per unit ratios, particularly for condominiums, appears to be very low. A review of 13 time-share units available in the Aspen, Vail, Beaver Creek and Copper Mountain areas was conducted. As indicated in the economic modeling, ARRA is proposing mostly two and three bedroom condominiums. The listing clearly shows that two bedroom condominiums have a capacity of at least six people and up to ten. Therefore, the 2.8 beds per condominium that ARRA used is apparently very low. The use of Vail averages appears to be flawed in that these units have been built over 15 years and are not reflective of the current market. In particular, production oriented one bedroom condominiums were popular in the late 1970's for investment purposes. However, tax reforms in 1986 eliminated the tax advantages for these investments. Therefore, it appears that the ratios used by ARRA are skewed low by including these pre-1986 products.

It also appears that, contrary to ARRA statements in a December 10, 1992 meeting between the Corps and ARRA, time-share products are not "out of favor." There is evidence to support the continued popularity of time-share units. For example, about 400,000 time-shares were sold in 1989 compared to approximately 100,000 sold in 1980. This popularity is partially a consequence of the 1986 tax reforms. These units can be expected to have extremely high

occupancy rates, particularly during the ski season.

Regardless of the method to evaluate beds per skier, Corps evaluations indicate that the majority of the units deleted for the modeling can be reincorporated into the Vassar Meadow development through modest relocations, utilization of available unused space and combining some recreational facilities.

POTENTIAL MEANS TO REDUCE WETLAND IMPACTS IN VASSAR MEADOW

The following is a partial listing of the potential means of avoiding wetlands. The discussion is not intended to be a comprehensive listing and response to all the issues that are represented in the administrative record. It is the sition the inis presumptions but against filling wetlands. These discussions are independent of that determination and are intended to outline several domains where the Corps perceives the potential to reduce impacts to wetlands.

1. Reduce number of units by elimination of Vassar Meadow Perimeter units occurring in wetlands.

Corps rationale: Initial economic modeling done by ERA under contract with the Corps revealed that there are 380 excess condominiums in Vassar Meadow at the end of the modeling period (i.e., 25 years). Elimination of 304 of these condominiums, in addition to 80 townhouses and 120 hotel rooms did not render the ARRA proposal infeasible. There is still adequate real estate product to finance the proposal. With the addition of previously neglected costs/expenses (i.e., additional capital costs related to mountain development equipment and additional contingencies on all capital costs) and manipulation of the absorption rates, ARRA contends that the project would fall below the threshold of economic viability. However, regardless of the Internal Rate of Return for the project as proposed by ARRA, elimination of the end of the modeled project life has a negligible effect on financial viability.

ARRA response: The units cannot be eliminated without affecting the "critical mass" and "village fabric" of the base facility, absorption rates of real estate products and, therefore, economic feasibility.

Corps conclusion: Assuming there is a need for "critical mass" (i.e., a concentrated core area with high density residential, commercial and recreational development), it can be met by filling the wetlands on the west side of East Brush Creek in Vassar Meadow where the ski lifts meet the hotels, high-rise condominiums and commercial facilities. BBC, a Corps economic consultant, concurred with the Corps that "critical mass" is generated by the high density commercial/residential core. The lower density units on the eastern side of East Brush Creek are not crucial to "critical mass".

"Village fabric" can be addressed by linkage of the peripheral areas to the core across the preserved riparian wetlands through enhanced transportation corridors (e.g., walking/bike paths, fixed lifts, surface tows, bus/van systems, etc.). However, even without these transports, most of the development is within walking distance (i.e., 1,500 feet) of the ski lifts and village core.

Additionally, a market can be expected for more isolated units due to particular buyers desires for solitude at "home", yet easy accessibility to activity in the core. These open wetland areas provide aesthetic diversity, facilitate integrating structures into the natural environment, provide cross-country skiing opportunities and offer unique natural interpretive potential.

The Corps does not concur with the assumptions ARRA installed into the various economic modeling. We agree that some of the increased costs, such as those associated with mountain development equipment, added busing expenses and additional contingencies, may be warranted. However, we believe that the surplus condominium units should be "bulked out" at the end of the 25-year evaluation period. Therefore, elimination of the identified units

would not affect the economic viability of the resort.

2. Relocate units to areas outside of wetland.

Corps rationale: Modest relocation or reorientation of units in, or straddling, wetlands would site many facilities outside of wetlands. Greater use of steeper sloped areas (i.e., slopes greater than 30%) and set-back areas could also be done.

ARRA response: Relocation is immaterial because subsurface drains would lower the water table to the extent that these dry areas could not be maintained as wetlands. Slopes greater than 30% cannot be developed due to increased costs and land area required to access. The County has set requirements for set-backs and right-of-way distances.

Corps conclusion: We have identified engineering techniques and modified construction design that would prevent the indirect adverse impact explained in the finding numbered 7 and 8 below. In addition, the Corps is not persuaded that hypothetical wetlands from upland development justifies wetland fill.

3. Increase available inventory by substituting higher density units for lower density units.

Corps rationale: The available inventory can be increased by converting a number of single family/townhouse units to higher density condominiums that would increase the available inventory of products.

ARRA response: ARRA wants to offer high-end products for increased revenues and enhanced opportunity for project success. ARRA maintains that they are offering the right mix of products to attract diverse buyers. Higher density units will not sell in today's market.

Corps conclusion: ARRA cannot narrowly define their project purpose to justify filling wetlands. This is contrary to Corps regulations, the 404(b)(1) Guidelines and guidance from the Office of the Chief of Engineers. The basic purpose of the condominiums is shelter. Additionally, the Corps cannot permit fill of wetlands to assure success of any particular venture.

6. Eliminate under-ground parking with subsurface building drains to avoid impacting adjacent wetlands.

Corps rationale: Impacts to a significant acreage of wetlands could be avoided with elimination of surplus units and subsurface building drains in adjacent buildings, these areas would persist as viable wetlands.

ARRA response: Surface parking requires using high value property and real estate with ground level parking is not marketable.

Corps conclusion: The Corps inspected parking facilities at four nearby ski areas (Arrowhead, Beaver Creek, Vail and Copper Mountain). No townhouses or similar residences had subsurface parking; all parking was either open surface lots or ground level (i.e., first building floor). Most condominiums also had similar parking accommodations. Only some of the largest condominium complexes and hotels had subsurface parking and these appeared to occur in the minority of cases. Therefore, virtually all subsurface parking can be eliminated except for possibly the hotels and large condominiums in the Vassar Meadow Core.

The Corps has reviewed this issue and we have received an engineering report from an Environmental Protection Agency contractor (i.e. Science Applications International Corporation (SAIC). Alternative construction techniques, including drilled-in piers or driven piles, are available to avoid adverse indirect impacts to the groundwater table. Pier foundations are the most common type of foundation used in areas of compressible soils or high groundwater where drainage is not possible. Under extreme conditions (e.g., encountering large immobile boulders) excavating for the piers with a large diameter bucket auger or use of “down-the-hole hammers” may be used. However, depending on stability, foundation piers could rest on the boulders.

7. Construct utility lines and roadways such that indirect drainage of nearby wetlands would not occur.

Corps rationale: Engineering techniques are available such that utility lines would not act as drains. For example, backfill could be solid fill with similar permeabilities of the surrounding area instead of sand or gravel; periodic clay barriers would also prevent the utility lines from acting as a linear drain. Engineering techniques are available that would prevent roadways from intercepting near-surface water and drain down-slope wetlands. This includes gravel beds with geotextile fabric. A traverse pipe network or other water delivery system to down-slope wetlands could also be used.

ARRA response: Extensive utility corridors and road drains will intercept groundwater, thereby indirectly draining nearby and down-slope wetlands. Engineering techniques to avoid this are either unknown or unproven.

Corps conclusion: The Corps, SAIC and one of ARRA's consultants have identified feasible engineering techniques that would avoid these indirect impacts

APPLICANT'S JANUARY PROJECT MODIFICATIONS

The applicant's letter dated January 26, 1993, revised the application in a manner that reduced wetland impacts by 5.94 acres. The revision failed to articulate the rational basis for the reduction in the amount of fill. The submission merely contained a map indicating the areas that would not need to be filled. The applicant continues to assert that any and all attempts to alter his proposal and reduce the fill, however small, would render the project economically infeasible. In the absense of a rational basis for the reduction of fill, the Corps is unable to establish a logical connection between their economic assertions and the latest revision to their application. Therefore, it is unclear why the applicant cannot make further reductions in other areas of the proposed project.

SUMMARY OF CONCLUSIONS

The Corps has identified several means of reducing wetland impacts in Vassar Meadow. These apparent means supplement the Corps' determination that the applicant has not clearly rebutted the presumption that less damaging icalto natreduce ilabwetland tiesimpacts include: eliminating excess units; modest relocation/reorientation of units; increasing densities of units; relocating employee housing; relocating underground parking on the east side of East Brush Creek and south of the core area; modifying construction techniques for utility lines and roadways; and relocations of certain other facilities.

These opportunities to avoid adverse impacts to wetlands are supported by engineering studies, land- use evaluations, field investigations and evaluation of relevant material in the project file. These conclusions are consistent with implementing Corps regulations and guidance.

DETERMINATION OF COMPLIANCE WITH 40 CFR 230.10(a)

For purposes of the Section 404(b)(1) Guidelines, the Corps has determined that the project proposal is the construction of a residential and commercial development attendant to a four-season resort. The record indicates that since receipt of the permit application in February of 1987, the amount of proposed filling of Vassar Meadow has remained rto nstant in quantifill , the applicant j45.81ses acres wetland in the Vassar Meadow area out of a total of 71.2 acres (64%). This has not changed appreciably since the to fill 49 acress submitted wetland in Vassar Meadow. Wetland

acreage differences primarily result from refining the previously existing wetland delineation map. Wetland impacts were reduced from 51.75 acres due to avoiding 5.94 acres as identified in the applicant's January 26, 1993 letter.

It is noted that the preamble to the EPA's Guidelines in the discussion of practicable alternatives states:

> We have changed the word "economic" to "cost". Our intent is to consider those alternatives which are reasonable in terms of the overall scope/cost of the proposed project. The term economic might be construed to include consideration of the applicant's financial standing, or investment, or market share, a cumbersome inquiry which is not necessarily material to the objectives of the Guidelines.

Despite the regulation's distinction between "economics" and "cost", the applicant has based a substantial amount of his analysis of practicable alternatives on economic data. The vast majority of the economic arguments submitted to the Corps relates to the applicant's desire to attract a unique market share of the resort community. In our attempts to identify the practicable alternatives, the Corps has attempted to consider these factors within the restraints of the applicable regulations and law.

It has been, and remains, the applicant's position that any and all attempts to alter their proposal and reduce the fill, however small, would render their project economically infeasible. This has been maintained even though several structures were removed from two particular wetlands in January of 1993.

The Guidelines clearly state that no discharge of dredged or fill material shall be permitted if there is a practicable alternative that would have less adverse impact on the aquatic ecosystem. The several means of reducing and/or avoiding adverse impacts to wetlands in Vassar Meadow are practicable since they are available and capable of being done after taking into consideration cost, existing technology and logistics.

Furthermore, the proposed development in wetlands is not water-dependent. The Guidelines clearly state that for non-water-dependent activities, "practicable alternatives are presumed to be available, unless clearly demonstrated otherwise. Based on this SOF and the administrative record, the Corps concludes that the applicant has not clearly rebutted this presumption.

Considering all the information available to the Corps, it is clear that the applicant has not complied with the specific portion of the Section 404(b)(1) Guidelines as described at 40 CFR 230.10(a). The applicant has not rebutted the presumption that his proposal is the least damaging practicable alternative. There are a number of practicable alternatives which would have less adverse impact on the aquatic ecosystem. Therefore, it is recommended that the ARRA application for a Section 404 permit to fill 45.81 acres of wetlands in Vassar Meadow be denied.

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